

\* APR.1  
APR.4  
APR.5  
\* APR.3  
\* SSE.1  
\* SSE.2  
APR.2  
\* BF.4

(APR.1) simplify each expression & describe/show/state each properties used for each step.

① algebraic WK	justification	② Alg WK	justification
$\left(\frac{(5x^2)^2}{3x}\right)^{-1}$		$(3n^2+x-5)+(n^2+n)$ $-(x+3n-9)$	

③ alg. WK	justification
$(p^2-5p-2)(p+2)$	

④ alg. WK	justification
$(2m-3)^3$	

(APR.1) Short Answer. Use complete sentences to answer <sup>the</sup> following

⑤ Describe how to identify like terms.      ⑥ Explain why...

(APR.4)

⑦ Factor the expression & explain how you are using division to justify your answer.

$$3st^2 - 9s^3t + 6s^2t^2$$

⑧ Factor the expression by grouping.

a.  $6x^2 + 7x - 3$

b.  $x^2 + 12x + 20$

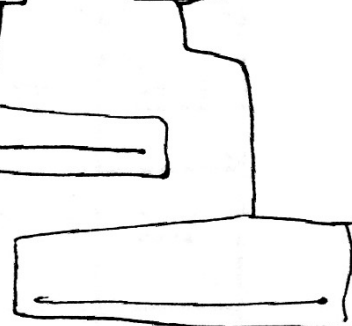
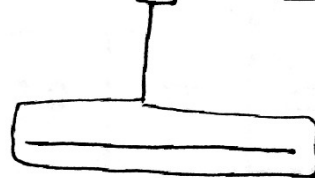
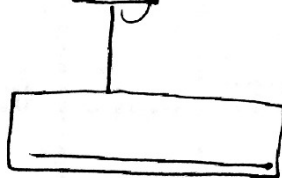
- 9 Prove you factoring is correct by using distribution.

$$6x^2 - 17x - 45$$

(SSE.1)

- 10 label the parts of this expression by filling in the blank spaces.

$$5y(2x+3m) - (3x+2y+m)$$



APR.3

- 11 explain what the ZPP allows you to do with factors?

- 12 a. find the zeros of the quadratic:  
 $4x^2 - 17x = -4$

- b. find the vertex of the quadratic

- c. construct a rough sketch of the quadratic using the vertex & roots.

Find the zeros. as coordinates)

13  $x^2 = 49$

14  $x^2 - 11x = 0$

15  $4x^2 - 13x = 12$

16  $5x^2 - 5x - 60 = 0$

(SSE.2) Find the zeros by completing the square

17  $2x^2 - 3x - 3 = 0$

18  $x^2 - 4x + 5$

- 19 Describe the difference of squares property

- 20 Find the zeros by applying diff of sqs  $y = 4x^2 - 81$

- 21 state the quadratic formula

- 22 state the discriminant formula & the rules if the discriminant tells about the # of zeros & if they are real or complex.

(23) complete parts 1-3 for each quad. eq.

1.) Find the value of the discriminant.

2.) Describe the number & type of roots

3.) Find the exact solutions by using the Quadratic Formula

a.  $8x^2 - 18x - 5 = 0$

b.  $x^2 + 3x + 8 = 5$

(APR. 2)

(24) use synthetic substitution to find  $g(3)$  &  $g(-4)$

a.  $x^2 - 8x + 6 = g(x)$

b.  $g(x) = x^3 + 8x^2 + 2x - 15$

(25) find remaining factors of the polynomial

$x^3 + 2x^2 - x - 2$

(BF. 4)

(26) Based on the ordered pairs  $(3, 1), (3, 6), (0, 6), (0, 1)$  graph the inverse function

(27) find the inverse of the function & justify your steps.

a. alg.	justification
$f(x) = \frac{2x+3}{6}$	

b. alg.	justification
$f(x) = \frac{4}{5}x - 7$	

~~(28) use the discriminant to find the # of roots that exist for the quadratic & if they are real/complex~~